

AMENDMENT OF THE CLAIMS

Applicant recites and amend the claims as follows.

1. (Previously Presented and Currently) A system for communicating an analog input signal as a modulated binary laser signal over a communication medium recovered as a ~~[[n]] output~~ digital output signal, the system comprising

a sigma delta modulator for receiving the analog input signal and modulating the analog signal into a modulated symbol signal,

a transmitter for converting the modulated symbol signal into the modulated binary laser signal, and for transmitting the modulated binary laser signal over the communication medium,

a receiver for receiving and detecting the modulated binary laser signal for providing a received symbol signal, and

a digital filter for filtering the symbol signal into the digital output signal.

2. (Previously Presented) The system of claim 1 wherein the transmitter comprises,

a symbol to binary converter for converting the modulated symbol signal from the sigma delta modulator into a converted digital signal, and

a pulse width modulator for modulating the laser signal by the converted digital signal into the modulated binary laser signal as a pulse width binary modulated laser signal communicated over the communication medium.

1 3. (Previously Presented) The system of claim 2 wherein the
2 receiver comprises,

3 a pulse width detector receiving the pulse width modulated
4 binary laser signal and for providing a detected binary signal, and
5 a binary to symbol converter for converting the detected binary
6 signal into the received symbol signal.
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9 4. (Previously Presented) The system of claim 3 wherein,

10 the pulse width detector is a pulse width quantizer detector,
11 the detected binary signal is a detected quantized signal,
12 the binary to symbol converter converts the detected quantized
13 signal into the received symbol signal.
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16 5. (Previously Presented) The system of claim 1 further comprising,
17 a timing recovery loop for generating a timing signal from the
18 receive symbol signal for clocking the digital filter.
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21 6. (Previously Presented) The system of claim 1 wherein,
22 the sigma delta modulator is a first order sigma delta
23 modulator.
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25 7. (Previously Presented) The system of claim 1 wherein,
26 the sigma delta modulator is a second order sigma delta
27 modulator.
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1 8. (Previously Presented) The system of claim 1 wherein the
2 communication medium is a fiber optic.

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4 9. (Canceled)

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6 10. Canceled)

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8 11. (Previously Presented and Currently Amended) A system for
9 communicating an analog input signal as a pulse width modulated
10 binary laser signal over a communication medium recovered as a[[n]]
11 ~~output~~ digital signal, the system comprising

12 a sigma delta modulator for receiving the analog input signal
13 and modulating the analog signal into a modulated symbol signal,

14 a transmitter for converting the modulated symbol signal into
15 a converted digital signal for pulse width modulating a laser
16 signal into the pulse width modulated binary laser signal, and for
17 transmitting the pulse width modulated binary laser signal over the
18 communication medium,

19 a receiver for receiving and detecting the pulse width
20 modulated binary laser signal to provide a detected binary signal
21 and for converting the detected binary signal into a received
22 symbol signal, and

23 a digital filter for filtering the symbol signal into
24 the digital output signal.
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1 12. (New) The system of claim 1 wherein the modulated digital laser
2 signal is asynchronously communicated over the communication
3 medium.

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5 13. (New) The system of claim 11 wherein the modulated digital
6 laser signal is asynchronously communicated over the communication
7 medium.

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